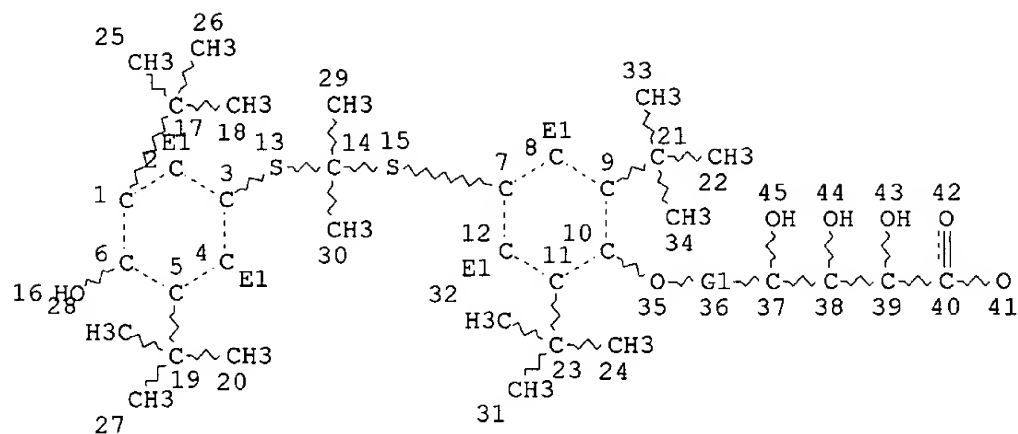


NTER (DIS), GRA, NOD, BON OR ?:nod 29 ch3, nod 30 ch3, hco 2 e1, hco 4 e1, hco 8 e1, hco 12 e1, dis



SRP 9/8 33, 407  
04/11  
2000

REP G1=(1-5) CH2

ENTER (DIS), GRA, NOD, BON OR ?:end

L3 STRUCTURE CREATED

=> search l3 sss full

FULL SEARCH INITIATED 15:38:21 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 9 TO ITERATE

100.0% PROCESSED 9 ITERATIONS ( 7 INCOMPLETE) 9 ANSWERS

SEARCH TIME: 00.00.01

L4 9 SEA SSS FUL L3

=> dis l4 1- sub bib abs

YOU HAVE REQUESTED DATA FROM 9 ANSWERS - CONTINUE? Y/(N):y

L4 ANSWER 1 OF 9 REGISTRY COPYRIGHT 2003 ACS

RN 473427-26-8 REGISTRY

ITERATION INCOMPLETE

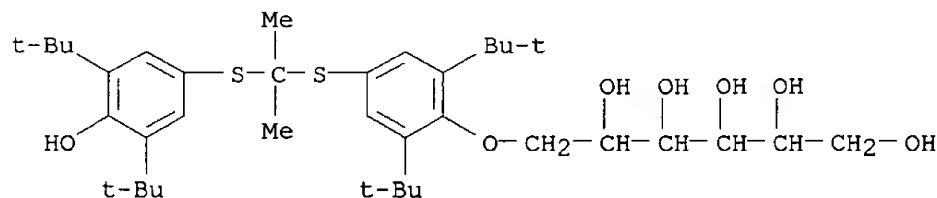
CN Hexitol, 6-O-[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C37 H60 O7 S2

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1

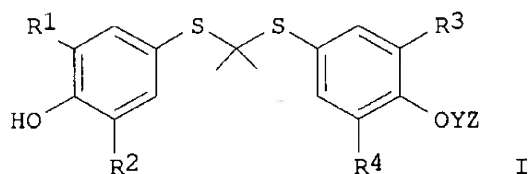
AN 137:320305 CA

TI Probutcol derivatives and methods for treating transplant rejection

IN Edwards, David B.; Somers, Patricia K.; Glass, Mitchell

PA USA  
 SO U.S. Pat. Appl. Publ., 22 pp., Cont.-in-part of U.S. Ser. No. 815,262.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 FAN.CNT 4

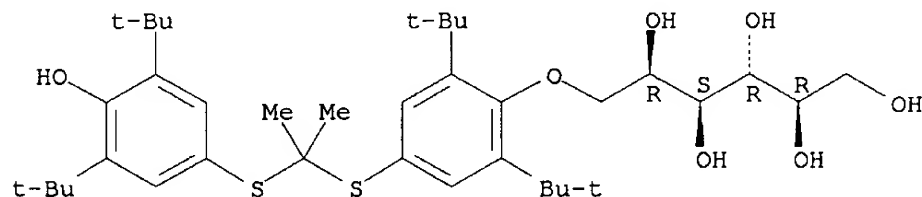
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002156022	A1	20021024	US 2001-36307	20011025
	US 6147250	A	20001114	US 1998-79213	19980514
	US 2002016300	A1	20020207	US 2001-815262	20010321
	US 2002177717	A1	20021128	US 2002-60734	20020130
	US 2002169215	A1	20021114	US 2002-114346	20020402
	US 2002188118	A1	20021212	US 2002-115206	20020402
	US 2002193446	A1	20021219	US 2002-114351	20020402
PRAI	US 1997-47020P		19970514		
	US 1998-79213		19980514		
	US 1999-370046		19990806		
	US 2000-191046P		20000321		
	US 2001-815262		20010321		
GI					



AB The invention discloses the use of I [R1-R4 = H, OH, C1-10 alkyl, aryl, heteroaryl, etc.; Y = bond, C(O); Z = C1-10 alkyl, C2-10 alkenyl, C2-10 alkynyl, etc.], and pharmaceutically acceptable salts thereof, alone or in combination, for the treatment of transplant rejection. Prepn. of I [R1-R4 = tert-butyl; YZ = (CH2)3COOH] from probucol which was evaluated in a graft arteriopathy model and Me 4-chlorobutyrate is described.

L4 ANSWER 2 OF 9 REGISTRY COPYRIGHT 2003 ACS  
 RN 366494-65-7 REGISTRY  
 ITERATION INCOMPLETE  
 CN D-Altritol, 1-O-[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C37 H60 O7 S2  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1962 TO DATE)

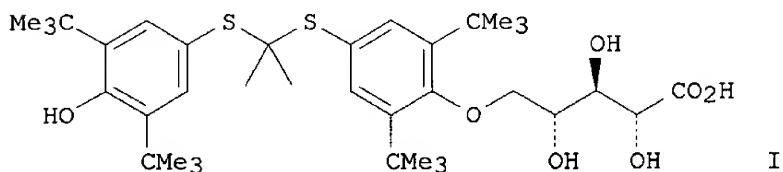
## 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

## REFERENCE 1

AN 135:303678 CA  
 TI Preparation of probucol monoethers which increase plasma HDL cholesterol levels and which improve HDL functionality.  
 IN Luchoomun, Jayraz; Meng, Charles Q.; Saxena, Uday  
 PA Atherogenics, Inc., USA  
 SO PCT Int. Appl., 105 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001077072	A2	20011018	WO 2001-US11899	20010411
	WO 2001077072	A3	20020718		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	US 2002016364	A1	20020207	US 2001-833407	20010411
	EP 1272465	A2	20030108	EP 2001-926894	20010411
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
PRAI	US 2000-196201P		20000411		
	WO 2001-US11899		20010411		

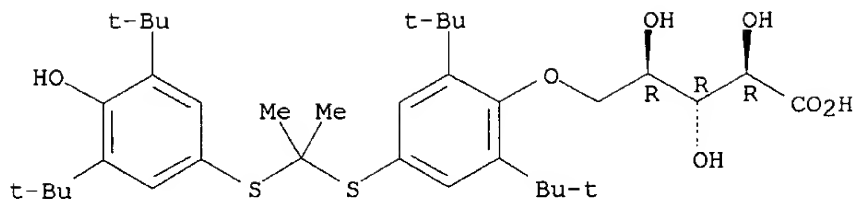
GI



AB Title compds., e.g. (I), were prepd. Thus, D-ribonic acid .gamma.-lactone was refluxed 16 h with tri-Et orthoformate in THF to give a residue which was refluxed with probucol, Ph3P, and di-Et azodicarboxylate in THF to give a residue which in turn was refluxed with HOAc/MeOH/H2O to give a residue which was stirred with aq. NaOH in THF to give I. I at 150 mg/kg/day gave a 30% increase in HDL cholesterol levels in hypercholesterolemic hamsters. Title compds. may also improve HDL functionality by (a) increasing clearance of cholesteryl esters, (b) increasing HDL-particle affinity for hepatic cell surface receptors or (c) increasing the half life of apoAI-HDL.

L4 ANSWER 3 OF 9 REGISTRY COPYRIGHT 2003 ACS  
 RN 366494-61-3 REGISTRY  
 CN D-Ribonic acid, 5-O-[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C36 H56 O7 S2  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

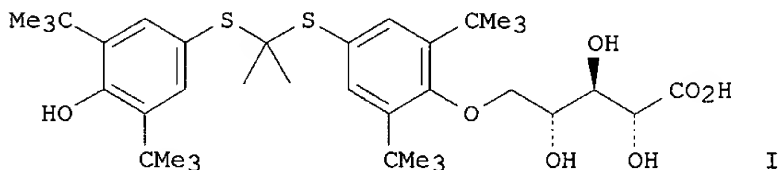
1 REFERENCES IN FILE CA (1962 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

# REFERENCE 1

AN 135:303678 CA  
TI Preparation of probucol monoethers which increase plasma HDL cholesterol levels and which improve HDL functionality.  
IN Luchoomun, Jayraz; Meng, Charles Q.; Saxena, Uday  
PA Atherogenics, Inc., USA  
SO PCT Int. Appl., 105 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001077072	A2	20011018	WO 2001-US11899	20010411
	WO 2001077072	A3	20020718		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	US 2002016364	A1	20020207	US 2001-833407	20010411
	EP 1272465	A2	20030108	EP 2001-926894	20010411
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
PRAI	US 2000-196201P		20000411		
	WO 2001-US11899		20010411		

GI

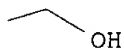
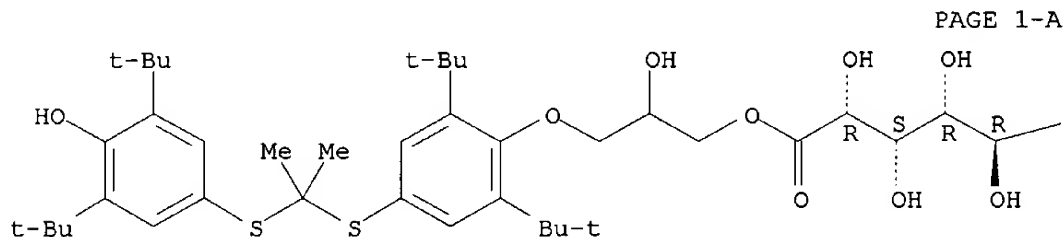


AB Title compds., e.g. (I), were prepd. Thus, D-ribonic acid .gamma.-lactone was refluxed 16 h with tri-Et orthoformate in THF to give a residue which was refluxed with probucol, Ph3P, and di-Et azodicarboxylate in THF to give a residue which in turn was refluxed with HOAc/MeOH/H2O to give a residue which was stirred with aq. NaOH in THF to give I. I at 150 mg/kg/day gave a 30% increase in HDL cholesterol levels in hypercholesterolemic hamsters. Title compds. may also improve HDL functionality by (a) increasing clearance of cholesteryl esters, (b)

increasing HDL-particle affinity for hepatic cell surface receptors or (c) increasing the half life of apoAI-HDL.

L4 ANSWER 4 OF 9 REGISTRY COPYRIGHT 2003 ACS  
RN 362598-46-7 REGISTRY  
ITERATION INCOMPLETE  
CN D-Gluconic acid, 3-[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenoxy]-2-hydroxypropyl ester (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C40 H64 O10 S2  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

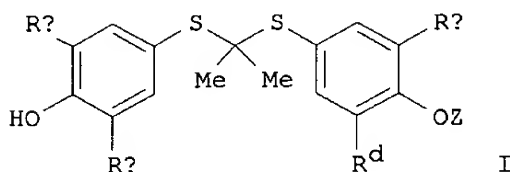
1 REFERENCES IN FILE CA (1962 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

#### REFERENCE 1

AN 135:267271 CA  
TI Probucol-related thioketals and thioethers for inhibiting the expression of VCAM-1, preparation, and therapeutic use  
IN Meng, Charles Q.; Hoong, Lee K.; Somers, Patricia K.  
PA Atherogenics, Inc., USA  
SO PCT Int. Appl., 58 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001070757	A2	20010927	WO 2001-US9049	20010321
	WO 2001070757	A3	20020314		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1289944	A2	20030312	EP 2001-920617	20010321	
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

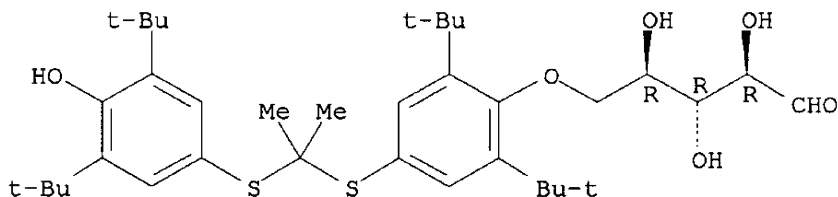
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
PRAI US 2000-191046P 20000321  
WO 2001-US9049 20010321  
GI



AB Probucol-related thioketals and thioethers are provided that inhibit the expression of VCAM-1, and which can be used in the treatment of VCAM-1-mediated diseases, including inflammatory disorders, cardiovascular diseases, ocular diseases, autoimmune diseases, neurol. disorders, and cancer. Comps. of the invention include I [Ra-Rd = H, (un)substituted alkyl, (un)substituted aryl, etc.; Z = (un)substituted carbohydrate, (un)substituted alditol, (un)substituted C1-10 alkyl terminated by sulfonic acid, etc.]. The comps. also can be used to treat hyperlipidemia and/or hypercholesterolemia. Compd. prepn. is described.

L4 ANSWER 5 OF 9 REGISTRY COPYRIGHT 2003 ACS  
RN 362598-44-5 REGISTRY  
ITERATION INCOMPLETE  
CN D-Ribose, 5-O-[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C36 H56 O6 S2  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1962 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1

AN 135:267271 CA  
TI Probucol-related thioketals and thioethers for inhibiting the expression of VCAM-1, preparation, and therapeutic use  
IN Meng, Charles Q.; Hoong, Lee K.; Somers, Patricia K.  
PA Atherogenics, Inc., USA  
SO PCT Int. Appl., 58 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----

PI WO 2001070757 A2 20010927 WO 2001-US9049 20010321

WO 2001070757 A3 20020314

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,  
HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,  
LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,  
RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,  
VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

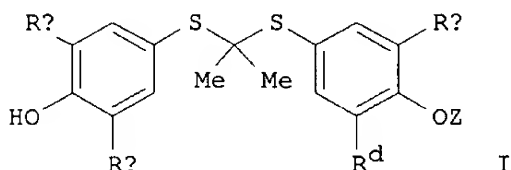
EP 1289944 A2 20030312 EP 2001-920617 20010321

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRAI US 2000-191046P 20000321

WO 2001-US9049 20010321

GI



AB Probucol-related thioketals and thioethers are provided that inhibit the expression of VCAM-1, and which can be used in the treatment of VCAM-1-mediated diseases, including inflammatory disorders, cardiovascular diseases, ocular diseases, autoimmune diseases, neurol. disorders, and cancer. Comps. of the invention include I [Ra-Rd = H, (un)substituted alkyl, (un)substituted aryl, etc.; Z = (un)substituted carbohydrate, (un)substituted alditol, (un)substituted C1-10 alkyl terminated by sulfonic acid, etc.]. The compds. also can be used to treat hyperlipidemia and/or hypercholesterolemia. Compd. prepn. is described.

L4 ANSWER 6 OF 9 REGISTRY COPYRIGHT 2003 ACS

RN 362598-43-4 REGISTRY

ITERATION INCOMPLETE

CN Arabinitol, 5-O-[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)

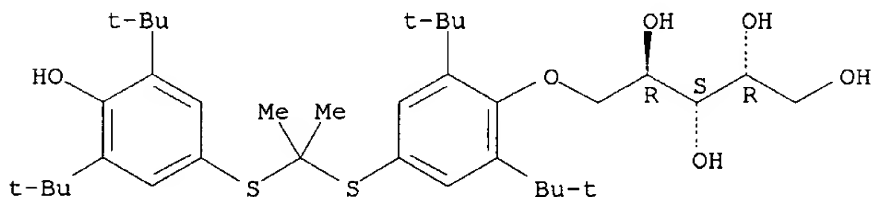
FS STEREOSEARCH

MF C36 H58 O6 S2

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Relative stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

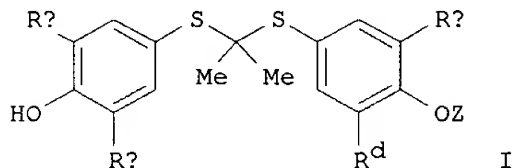
1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1

AN 135:267271 CA  
 TI Probucol-related thioketals and thioethers for inhibiting the expression  
 of VCAM-1, preparation, and therapeutic use  
 IN Meng, Charles Q.; Hoong, Lee K.; Somers, Patricia K.  
 PA Atherogenics, Inc., USA  
 SO PCT Int. Appl., 58 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 4

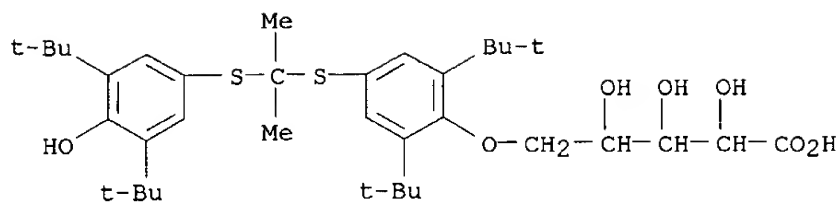
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001070757	A2	20010927	WO 2001-US9049	20010321
	WO 2001070757	A3	20020314		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG EP 1289944 A2 20030312 EP 2001-920617 20010321 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR PRAI US 2000-191046P 20000321 WO 2001-US9049 20010321 GI				



AB Probucol-related thioketals and thioethers are provided that inhibit the expression of VCAM-1, and which can be used in the treatment of VCAM-1-mediated diseases, including inflammatory disorders, cardiovascular diseases, ocular diseases, autoimmune diseases, neurol. disorders, and cancer. Compds. of the invention include I [Ra-Rd = H, (un)substituted alkyl, (un)substituted aryl, etc.; Z = (un)substituted carbohydrate, (un)substituted alditol, (un)substituted C1-10 alkyl terminated by sulfonic acid, etc.]. The compds. also can be used to treat hyperlipidemia and/or hypercholesterolemia. Compd. prepn. is described.

L4 ANSWER 7 OF 9 REGISTRY COPYRIGHT 2003 ACS  
 RN 268738-49-4 REGISTRY  
 CN Pentonic acid, 5-O-[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C36 H56 O7 S2  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL





\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1962 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1

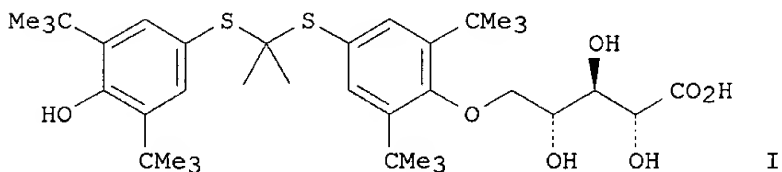
AN 135:303678 CA  
TI Preparation of probucol monoethers which increase plasma HDL cholesterol levels and which improve HDL functionality.  
IN Luchoomun, Jayraz; Meng, Charles Q.; Saxena, Uday  
PA Atherogenics, Inc., USA  
SO PCT Int. Appl., 105 pp.  
CODEN: PIXXD2

DT Patent  
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001077072	A2	20011018	WO 2001-US11899	20010411
	WO 2001077072	A3	20020718		
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 2002016364	A1	20020207	US 2001-833407	20010411
	EP 1272465	A2	20030108	EP 2001-926894	20010411
	R:				
	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRAI	US 2000-196201P		20000411		
	WO 2001-US11899		20010411		

GI



AB Title compds., e.g. (I), were prepd. Thus, D-ribonic acid .gamma.-lactone was refluxed 16 h with tri-Et orthoformate in THF to give a residue which was refluxed with probucol, Ph3P, and di-Et azodicarboxylate in THF to give a residue which in turn was refluxed with HOAc/MeOH/H2O to give a residue which was stirred with aq. NaOH in THF to give I. I at 150 mg/kg/day gave a 30% increase in HDL cholesterol levels in hypercholesterolemic hamsters. Title compds. may also improve HDL functionality by (a) increasing clearance of cholesteryl esters, (b) increasing HDL-particle affinity for hepatic cell surface receptors or (c)

increasing the half life of apoAI-HDL.

REFERENCE 2

AN 132:343330 CA  
TI Methods and compositions to lower plasma cholesterol levels  
IN Medford, Russell M.; Saxena, Uday  
PA Atherogenics, Inc., USA  
SO PCT Int. Appl., 50 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

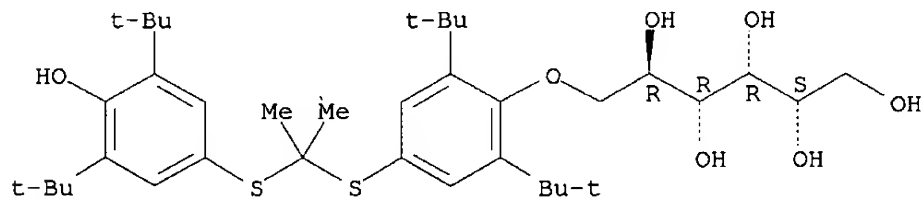
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000028332	A1	20000518	WO 1999-US26519	19991109
	W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	EP 1137948	A1	20011004	EP 1999-962732	19991109
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
	JP 2002529740	T2	20020910	JP 2000-581459	19991109
PRAI	US 1998-107644P		19981109		
	WO 1999-US26519		19991109		

AB A method for detg. whether a compd. binds to a lipoprotein, e.g. LDL or VLDL, in a manner which will lower plasma cholesterol is provided that includes assessing the ability of the compd. to form a complex with the lipoprotein, e.g., LDL or VLDL, and then detg. whether the newly formed complex causes a change in the structure of apoB-100 that results in increased binding affinity to the LDL receptor. Also disclosed is a method for lowering cholesterol in a host in need thereof, including a human, that includes the administration of an effective amt. of a compd. which binds to cholesterol-carrying lipoprotein (e.g. LDL or VLDL) in a manner that alters the three dimensional configuration of the lipoprotein and increases the binding affinity of the apoB-100 protein to the LDL receptor, including those on the surface of a hepatic cell.

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 9 REGISTRY COPYRIGHT 2003 ACS  
RN 216168-36-4 REGISTRY  
ITERATION INCOMPLETE  
CN D-Glucitol, 6-O-[4-[[[1-[[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C37 H60 O7 S2  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

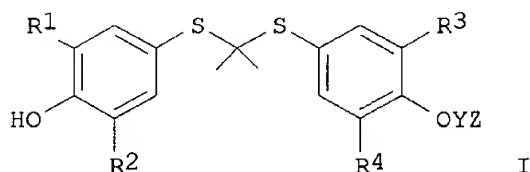
3 REFERENCES IN FILE CA (1962 TO DATE)  
3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1

AN 137:320305 CA  
TI Probucol derivatives and methods for treating transplant rejection  
IN Edwards, David B.; Somers, Patricia K.; Glass, Mitchell  
PA USA  
SO U.S. Pat. Appl. Publ., 22 pp., Cont.-in-part of U.S. Ser. No. 815,262.  
CODEN: USXXCO  
DT Patent  
LA English  
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002156022	A1	20021024	US 2001-36307	20011025
	US 6147250	A	20001114	US 1998-79213	19980514
	US 2002016300	A1	20020207	US 2001-815262	20010321
	US 2002177717	A1	20021128	US 2002-60734	20020130
	US 2002169215	A1	20021114	US 2002-114346	20020402
	US 2002188118	A1	20021212	US 2002-115206	20020402
	US 2002193446	A1	20021219	US 2002-114351	20020402
PRAI	US 1997-47020P		19970514		
	US 1998-79213		19980514		
	US 1999-370046		19990806		
	US 2000-191046P		20000321		
	US 2001-815262		20010321		

GI



AB The invention discloses the use of I [R1-R4 = H, OH, C1-10 alkyl, aryl, heteroaryl, etc.; Y = bond, C(O); Z = C1-10 alkyl, C2-10 alkenyl, C2-10 alkynyl, etc.], and pharmaceutically acceptable salts thereof, alone or in combination, for the treatment of transplant rejection. Prepn. of I [R1-R4 = tert-butyl; YZ = (CH2)3COOH] from probucol which was evaluated in a graft arteriopathy model and Me 4-chlorobutyrate is described.

REFERENCE 2

AN 132:343330 CA  
TI Methods and compositions to lower plasma cholesterol levels  
IN Medford, Russell M.; Saxena, Uday  
PA Atherogenics, Inc., USA  
SO PCT Int. Appl., 50 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000028332	A1	20000518	WO 1999-US26519	19991109

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,

CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,  
IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,  
MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,  
SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ,  
BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,  
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,  
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1137948 A1 20011004 EP 1999-962732 19991109

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO

JP 2002529740 T2 20020910 JP 2000-581459 19991109

PRAI US 1998-107644P 19981109

WO 1999-US26519 19991109

AB A method for detg. whether a compd. binds to a lipoprotein, e.g. LDL or VLDL, in a manner which will lower plasma cholesterol is provided that includes assessing the ability of the compd. to form a complex with the lipoprotein, e.g., LDL or VLDL, and then detg. whether the newly formed complex causes a change in the structure of apoB-100 that results in increased binding affinity to the LDL receptor. Also disclosed is a method for lowering cholesterol in a host in need thereof, including a human, that includes the administration of an effective amt. of a compd. which binds to cholesterol-carrying lipoprotein (e.g. LDL or VLDL) in a manner that alters the three dimensional configuration of the lipoprotein and increases the binding affinity of the apoB-100 protein to the LDL receptor, including those on the surface of a hepatic cell.

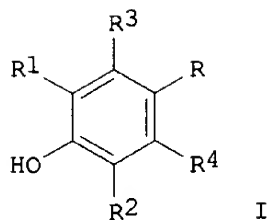
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

#### REFERENCE 3

AN 130:13646 CA  
TI Preparation of phenolic compounds for the inhibition of the expression of VCAM-1  
IN Medford, Russell M.; Somers, Patricia K.; Hoong, Lee K.; Meng, Charles Q.  
PA Atherogenics, Inc., USA  
SO PCT Int. Appl., 109 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9851662	A2	19981119	WO 1998-US9781	19980514
	WO 9851662	A3	20000302		
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	AU 9874851	A1	19981208	AU 1998-74851	19980514
	AU 750041	B2	20020711		
	EP 994853	A2	20000426	EP 1998-922264	19980514
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
	US 6121319	A	20000919	US 1998-78935	19980514
	BR 9809819	A	20010918	BR 1998-9819	19980514
	JP 2002503227	T2	20020129	JP 1998-549502	19980514
	NO 9905544	A	20000110	NO 1999-5544	19991112
	MX 9910402	A	20000630	MX 1999-10402	19991112
PRAI	US 1997-47020P		19970514		
	WO 1998-US9781		19980514		

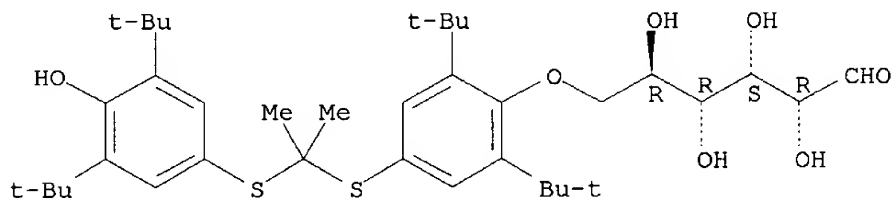
GI



AB Title compds. [e.g., I; R = Z1Z2R5; R1,R2 = (un)substituted (cyclo)alkyl, -(hetero)aryl, etc.; R3,R4 = any group that does not otherwise adversely affect (sic) the desired properties of the mol. including H, halogen, or R1 (sic); R5 = (di)(alkyl)amino, alkyl, alkoxy(carbonyl), (hetero)aryl, etc.; Z1 = O SO0-2, NH, CH2; Z2 = bond, alkylene(oxy) aryleneoxy, etc.] were prep'd. Thus, 4-(BrCH2)C6H4CH2CO2H was thioetherified by 4-mercapto-2,6-di-tert-butylphenol to give I [R = SCH2C6H4(CH2CO2H)-4, R1 = R2 = CMe3, R3 = R4 = H]. Data for biol. activity of I were given.

L4 ANSWER 9 OF 9 REGISTRY COPYRIGHT 2003 ACS  
 RN 216168-35-3 REGISTRY  
 ITERATION INCOMPLETE  
 CN D-Glucose, 6-O-[4-[[1-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]thio]-1-methylethyl]thio]-2,6-bis(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C37 H58 O7 S2  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3 REFERENCES IN FILE CA (1962 TO DATE)  
 3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

#### REFERENCE 1

AN 135:303678 CA  
 TI Preparation of probucol monoethers which increase plasma HDL cholesterol levels and which improve HDL functionality.  
 IN Luchoomun, Jayraz; Meng, Charles Q.; Saxena, Uday  
 PA Atherogenics, Inc., USA  
 SO PCT Int. Appl., 105 pp.  
 CODEN: PIXXD2

DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001077072	A2	20011018	WO 2001-US11899	20010411
	WO 2001077072	A3	20020718		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,

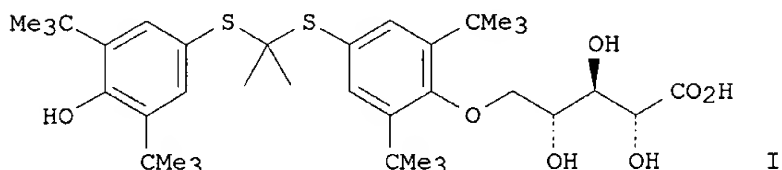
LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,  
 RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,  
 VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2002016364 A1 20020207 US 2001-833407 20010411  
 EP 1272465 A2 20030108 EP 2001-926894 20010411

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRAI US 2000-196201P 20000411  
 WO 2001-US11899 20010411

GI



AB Title compds., e.g. (I), were prepd. Thus, D-ribonic acid .gamma.-lactone was refluxed 16 h with tri-Et orthoformate in THF to give a residue which was refluxed with probucol, Ph3P, and di-Et azodicarboxylate in THF to give a residue which in turn was refluxed with HOAc/MeOH/H2O to give a residue which was stirred with aq. NaOH in THF to give I. I at 150 mg/kg/day gave a 30% increase in HDL cholesterol levels in hypercholesterolemic hamsters. Title compds. may also improve HDL functionality by (a) increasing clearance of cholesteryl esters, (b) increasing HDL-particle affinity for hepatic cell surface receptors or (c) increasing the half life of apoAI-HDL.

# REFERENCE 2

AN 132:343330 CA  
 TI Methods and compositions to lower plasma cholesterol levels  
 IN Medford, Russell M.; Saxena, Uday  
 PA Atherogenics, Inc., USA  
 SO PCT Int. Appl., 50 pp.  
 CODEN: PIXXD2

DT Patent  
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000028332	A1	20000518	WO 1999-US26519	19991109
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1137948	A1	20011004	EP 1999-962732	19991109
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002529740	T2	20020910	JP 2000-581459	19991109
PRAI	US 1998-107644P		19981109		
	WO 1999-US26519		19991109		

AB A method for detg. whether a compd. binds to a lipoprotein, e.g. LDL or VLDL, in a manner which will lower plasma cholesterol is provided that includes assessing the ability of the compd. to form a complex with the

lipoprotein, e.g., LDL or VLDL, and then detg. whether the newly formed complex causes a change in the structure of apoB-100 that results in increased binding affinity to the LDL receptor. Also disclosed is a method for lowering cholesterol in a host in need thereof, including a human, that includes the administration of an effective amt. of a compd. which binds to cholesterol-carrying lipoprotein (e.g. LDL or VLDL) in a manner that alters the three dimensional configuration of the lipoprotein and increases the binding affinity of the apoB-100 protein to the LDL receptor, including those on the surface of a hepatic cell.

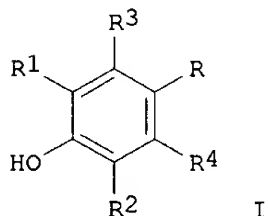
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

# REFERENCE 3

AN 130:13646 CA  
TI Preparation of phenolic compounds for the inhibition of the expression of VCAM-1  
IN Medford, Russell M.; Somers, Patricia K.; Hoong, Lee K.; Meng, Charles Q.  
PA Atherogenics, Inc., USA  
SO PCT Int. Appl., 109 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9851662	A2	19981119	WO 1998-US9781	19980514
	WO 9851662	A3	20000302		
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW:	AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU	9874851	A1	19981208	AU 1998-74851	19980514
AU	750041	B2	20020711		
EP	994853	A2	20000426	EP 1998-922264	19980514
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US	6121319	A	20000919	US 1998-78935	19980514
BR	9809819	A	20010918	BR 1998-9819	19980514
JP	2002503227	T2	20020129	JP 1998-549502	19980514
NO	9905544	A	20000110	NO 1999-5544	19991112
MX	9910402	A	20000630	MX 1999-10402	19991112
PRAI	US 1997-47020P		19970514		
	WO 1998-US9781		19980514		

GI



AB Title compds. [e.g., I; R = Z1Z2R5; R1,R2 = (un)substituted (cyclo)alkyl, -(hetero)aryl, etc.; R3,R4 = any group that does not otherwise adversely affect (sic) the desired properties of the mol. including H, halogen, or R1 (sic); R5 = (di)(alkyl)amino, alkyl, alkoxy(carbonyl), (hetero)aryl, etc.; Z1 = O SO0-2, NH, CH2; Z2 = bond, alkylene(oxy) aryleneoxy, etc.] were prepd. Thus, 4-(BrCH2)C6H4CH2CO2H was thioetherified by

4-mercapto-2,6-di-tert-butylphenol to give I [R = SCH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>(CH<sub>2</sub>CO<sub>2</sub>H)-4, R<sub>1</sub> = R<sub>2</sub> = CMe<sub>3</sub>, R<sub>3</sub> = R<sub>4</sub> = H]. Data for biol. activity of I were given.

=>